

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A layer-by-layer etching apparatus using a neutral beam, the layer-by-layer etching apparatus comprising:

a reaction chamber having a stage therein on which a substrate to be etched is mounted;

a neutral beam generator, including:

an ion source for extracting an ion beam having a predetermined polarity from a source gas and for accelerating the ion beam; and

a plate-shape reflector which is positioned in a path of the accelerated ion beam and is tiltable to control an incident angle of the accelerated ion beam in a range of 75 to 85 degree from a vertical line with respect to a surface of the reflector, whereby the reflector reflects and neutralizes the accelerated ion beam to generate a neutral beam and to supply the neutral beam into the reaction chamber;

a shutter disposed between the neutral beam generator and the reaction chamber, for controlling the supply of the neutral beam into the reaction chamber;

an etching gas supply for supplying an etching gas into the reaction chamber;

a purge gas supply for supplying a purge gas into the reaction chamber; and

a controller for controlling the supply of the source gas, the etching gas, and the purge gas and opening and closing the shutter.

2. – 3. (Cancelled)

4. (Currently Amended) The layer-by-layer etching apparatus of claim [[2]] 1, wherein the reflector comprises a plurality of co-centric cylindrical reflecting members and different polar voltages are applied to adjacent reflecting members.

5. (Currently Amended) The layer-by-layer etching apparatus of claim 1, wherein the reflector is one of a semiconductor substrate, a silicon dioxide substrate, [[and]] or a metal substrate.

6. (Currently Amended) The layer-by-layer etching apparatus of claim 1, wherein the ion source is one of a high-density helicon plasma ion gun ~~[[and]]~~ or an ICP-type ion gun.

7. (Previously Presented) The layer-by-layer etching apparatus of claim 1, wherein the substrate to be etched contains silicon.

8. – 16. (Cancelled)

17. (Previously Presented) The layer-by-layer etching apparatus of claim 1, wherein the neutral beam is an argon neutral beam.

18. (Previously Presented) The layer-by-layer etching apparatus of claim 1, wherein the etching gas comprises a chlorine gas.

19. - 21. (Cancelled)